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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/567,258

07/14/2006

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PF030134

3058

24498

7590

05/28/2008

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EXAMINER

SNYDER, ZACHARY J

ART UNIT

PAPER NUMBER

4135

MAIL DATE

DELIVERY MODE

05/28/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/567,258	Applicant(s) DRAZIC ET AL.
	Examiner Zachary Snyder	Art Unit 4135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/06/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by US PG Publication 2003/0164679 A1 to Hamano et al..

In regard to claim 1, Hamano discloses in figures 3a and 3b a lighting or image display panel (image forming apparatus, paragraph 121) comprising a substrate (substrate 1, paragraph 112) carrying:

an electroluminescent organic layer (luminous layer 4, paragraph 123) partitioned into electroluminescent cells (a cell being the pixels making up all the interactions of an anode 2 and cathodes 5) and inserted between two electrode layers of which one is transparent and the other opaque (when a transparent electrode is not used as the anode, a cathode is formed of a transparent electrode, paragraph 80), each cell corresponding to a region covering one electrode of each layer (each cell covers one electrode of each layer, it is covering one anode 2 and one cathode 5),

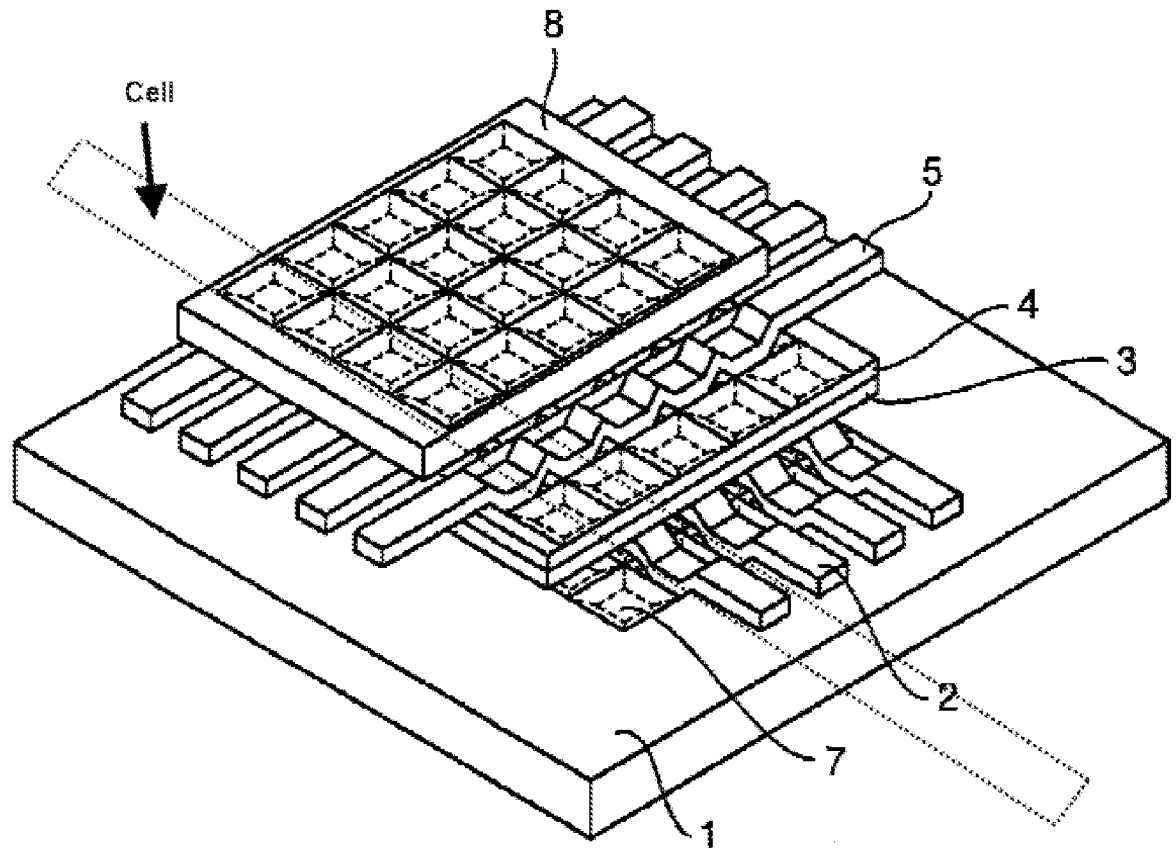
a layer of light extractors (light extraction surface, paragraph 123) operating by reflection (cause total reflection, paragraph 123), each extractor being made from transparent material

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(light extraction surface comprising transparent flattened structure 8, paragraph 123) and comprising a light entry interface optically coupled to the electroluminescent layer (luminous layer 4, paragraph 121) via the said transparent electrode (cathode 5, paragraph 121) layer (shown in figures 3a and 3b), a light exit interface directed towards the outside of the display panel (not labeled but shown in the figures 3a and 3b), and side walls forming reflecting optical interfaces for the light propagating within the extractor and a closed reflecting surface (light extraction surface comprising the inverted V-like structure 7, paragraph 121, and the inverted V-like structure is for reflecting light, paragraph 105),

where the electroluminescent layer region of each cell is optically coupled to a plurality of extractors (the cell is made of several intersections of the anode 2 and cathode 5, which at each intersection has an extractor, shown in the figure below), characterized in that, wherein, for each extractor, the surface of said light exit interface is superior to the surface of said light entry interface (the light exit interface is the top of the light extraction surface so it is superior to the light entry interface which is the bottom of the structure).

FIG.3a



In regard to claim 2, Hamano discloses the panel according to Claim 1, characterized in that wherein the distance between said organic electroluminescent layer and the entry interfaces of the said extractors is less than or equal to 1 micrometer (the transparent cathode 5 is between the electroluminescent layer and the extractor layer (shown in figure 3a) and is made from ITO (paragraph 79). The thickness of the ITO layer is 0.15 micrometers (paragraph 103) which is less than 1 micrometer).

In regard to claim 4, Hamano shows in figure 3a that the display panel according to claim 1, wherein the said transparent electrode layer (cathode 5) is positioned above the said electroluminescent organic layer (luminescent layer 4) on the opposite side from the substrate (substrate 1).

In regard to claim 5, Hamano discloses the display panel according to Claim 4, wherein:
the said display panel comprises an encapsulation layer positioned above the said transparent electrode layer (transparent flattened structure 8, shown in figure 3a),
the said extraction layer forms part of the said encapsulation layer (extraction surface is the mesa structure composed of the inverted V-like structure 7 and the transparent flattened structure 8, paragraph 123).

In regard to claim 6, Hamano discloses and shows in figure 3a the display panel according to Claim 4, wherein the layer of extractors (light extraction surface, paragraph 123, composed of transparent flattened structure 8 and inverted V-like structure 7) is applied directly onto the transparent electrode layer (the cathode 5 is formed directly on the substrate with the light extractors, paragraph 141, shown in figure 3a).

In regard to claim 7, Hamano discloses the display panel according to claim 1 in figure 3a, wherein the opaque electrode layer (anode 2) is reflecting (when the anode 2 is not transparent, it is preferably made of a material which can reflect light, paragraph 80).

Claim Rejections - 35 USC § 103

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over US PG Publication 2003/0164679 A1 to Hamano et al.

In regard to claim 3, Hamano discloses the display panel according to Claim 1 or 2, but does not specifically disclose that the plurality of extractors associated with the cell comprises over a hundred extractors.

However it would have been obvious to one of ordinary skill in the art at the time of the invention to have over one hundred extractors associated with the cell. Image displays panels such as the one disclosed by Hamano were known to one of ordinary skill in the art at the time of the claimed invention to have application in the standard definition or high definition television markets. The cell corresponds to a row in the display and a 4:3 aspect, square pixel, standard definition display has 640 pixels per row. The mesa structure that extracts light is arranged periodically at every pixel (paragraph 123) and since each cell comprises a row of pixels, and there are usually at least 640 pixels per row, the cell well have over one hundred extractors.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachary Snyder whose telephone number is (571)270-5291. The examiner can normally be reached on Monday through Thursday, 7:30AM to 6PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William M. Brewster can be reached on (574)272-1854. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Zachary Snyder/
Examiner, Art Unit 4135

/Z. S./
Examiner, Art Unit 4135

/William M. Brewster/
Supervisory Patent Examiner, Art Unit 4135